Report of Essential Learning Review

Fall, 2016

The process of review of EL student learning outcomes began on May 19 when two groups of faculty met to calibrate the written communication and critical thinking rubrics. Members of the groups were:

Written Communication Critical Thinking

Kate Dreiling Carmine Grieco

Alison Harris Kurt Haas

Doug O’Roark Suzanne Lay

Vince Patarino Nate Parry

Jason Reddoch Bette Schans

Judy Williams John Seebach

The calibration sessions took approximately 2 hours to complete. Each faculty member was given approximately 25 artifacts to review and score over the course of six weeks. Score sheets were submitted and data compiled. Each criteria score was averaged and the results are as follows:

**Written Communication**

Average

Context and Purpose for Writing 2.25

Content Development 2.01

Genre and Disciplinary Conventions 1.99

Sources and Evidence 1.79

Control of Syntax and Mechanics 2.09

Total rubric average 2.03

Written Communication artifacts were collected from four ENGL 111 courses using the assessment section of ePortfolio. Students submitted artifacts to the portfolio and Digication sent 25 randomly selected artifacts from each course for review. Each artifact was assessed by two reviewers.

Overall, the average scores were lower than scores from fall, 2015. This may be due, in particular, to the fact that the papers were not in proper format when sent from Digication and there were fewer sources listed for ENGL 111 than there are for ENGL 112 or other disciplines’ essays. Another issue was that the reviewers could not view the instructors’ assignment page as has been done in the past. Digication could not submit this document with the artifacts.

Comments from the reviewers were:

“After a little bit of getting used to the Digitation process was very easy to use.

The assignments were hard to figure out but again, after a while I began to see what was probably assigned. It would be very helpful if we had the actual assignments to look at and that would make the scoring a little more meaningful. The most under evaluated part of the process was not knowing whether students were supposed to site or not. Overall, it was a pretty smooth process.

There were some smooth parts of the process.  I was glad that we could increase the type size, which made it easier to read on-line.  I also was happy to see that the actual rubric on-line mechanics worked well (filling in the box, saving, etc.).

Some issues I had were:  again, I want access to the actual assignment, as we talked about in the rubric sessions.  Most of the papers had the student's name, which we should not have.  And, I wish that there was a mechanism to work more closely with our "partner".  In the past, we rated everything and could them re-calibrate with partners.  There were things I learned from that process that was very helpful.

I thought working with Digication was ok - didn't have any major issues aside from having a little difficulty reading one of the pdf papers (the formatting/sentences got garbled when downloaded).  Overall, I thought it was pretty easy to use in terms of assessment.

On a different note, would like to have access to the instructions for the assignments if possible - perhaps down the road once we get more settled in to using the platform? “

**Statistical Analysis**

Using a metarubric such as the VALUE rubrics to score across a broad range of artifacts and contexts can cause some issues with consistency and inter-rater reliability. Krippendorff’s alpha standard set to demonstrate reliability is at .8, however, additionally, the inter-rater reliability “where only tentative conclusions are acceptable, alpha greater than or equal to .667 is acceptable” (Krippendorf, 2004. pg. 241).

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Rating | Context/ Purpose | | Content Development | | Genre/ Disciplinary | | Sources/ Evidence | | Syntax/ Mechanics | |
| Rating | NA | 2 | 1% | 0 | 0% | 0 | 0% | 72 | 54% | 0 | 0% |
|  | 0 | 0 | 0% | 0 | 0% | 2 | 1% | 0 | 0% | 0 | 0% |
| Frequency | 1 | 14 | 10% | 34 | 25% | 32 | 24% | 21 | 16% | 36 | 27% |
|  | 2 | 74 | 55% | 65 | 49% | 67 | 50% | 34 | 25% | 52 | 39% |
|  | 3 | 40 | 30% | 32 | 24% | 32 | 24% | 6 | 4% | 44 | 33% |
|  | 4 | 4 | 3% | 3 | 2% | 1 | 1% | 1 | 1% | 2 | 1% |
| Average | a | 2.35 |  | 2.05 |  | 2.45 |  | 1.80 |  | 2.55 |  |
| Rating by | b | 2.50 |  | 2.25 |  | 2.15 |  | 1.92 |  | 1.90 |  |
| Reviewer | c | 2.54 |  | 2.33 |  | 2.04 |  | 1.62 |  | 2.46 |  |
|  | d | 2.05 |  | 1.96 |  | 2.04 |  | 1.70 |  | 2.04 |  |
|  | e | 2.30 |  | 2.00 |  | 2.09 |  | 2.50 |  | 2.22 |  |
|  | f | 1.83 |  | 1.61 |  | 1.22 |  | 1.50 |  | 1.39 |  |
| Overall Average |  | 2.26 |  | 2.03 |  | 1.99 |  | 1.79 |  | 2.09 |  |

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| **Context/ Purpose** | |  |  |  |  |  | |  | | --- | |  | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Number of rating pairs (2 raters on same artifact) | | | | | 65 |  |  |  |  |  |  |
| Pairs in agreement | |  |  |  | 30 | 46% |  |  |  |  |  |
| Krippendorf's alpha (ordinal) | | |  |  | 0.1789 |  |  |  |  |  |  |
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| **Content Development** | |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | | | | |
| Number of rating pairs (2 raters on same artifact) | | | | | 67 |  |
| Pairs in agreement | |  |  |  | 28 | 42% |
| Krippendorf's alpha (ordinal) | | |  |  | 0.3897 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
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| **Genre/ Disciplinary** | |  |  |  |  |  |  | | | | |
|  |  |  |  |  |  |  |  | | | | |
| Number of rating pairs (2 raters on same artifact) | | | | | 67 |  |
| Pairs in agreement | |  |  |  | 34 | 51% |
| Krippendorf's alpha (ordinal) | | |  |  | 0.3891 |  |  |  |  |  |  |
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| **Sources/ Evidence** | |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Number of rating pairs (2 raters on same artifact) | | | | | 24 |  |
| Pairs in agreement | |  |  |  | 12 | 50% |  |  |  |  |  |
| Krippendorf's alpha (ordinal) | | |  |  | 0.2615 |  |  |  |  |  |  |
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| **Syntax/ Mechanics** | |  |  |  |  |  |  | | | | |
| Number of rating pairs (2 raters on same artifact) | | | | | 67 |  |
| Pairs in agreement | |  |  |  | 26 | 39% |
| Krippendorf's alpha (ordinal) | | |  |  | 0.2897 |  |  |  |  |  |  |

**Conclusions**

As mentioned, the low numbers for Krippendorf’s alpha could be attributed to the lack of explanation of the assignment or the method of sending the artifacts from Digication to the reviewers. It has been determined that the use of Digication for assessment will be delayed so faculty can start using the software in class and students become more familiar with the process.

**Critical Thinking**

Average

Explanation of Issues 1.98

Supporting Information 1.67

Analysis 1.98

Student’s Position 1.78

Conclusions and Related Outcomes 1.94

Total rubric average: 1.87

60 artifacts came from the Social Behavioral Sciences Humanities, and Fine Arts courses. Overall, the average scores were lower than scores from November, 2015. Correlation scores were again high between criteria with the highest score comparing Analysis and, Conclusions and Related Outcomes. The lowest correlation score was between Supporting Information and, Conclusions and Related Outcomes.

Reviewer Comments:

Thank you for the invitation. I enjoyed taking part in the process. I don’t have any critiques of the process. In my opinion the rubric is well-written and will measure what you want it to. Some of the artifacts lend themselves to assessment better than others, but I suppose that is why you are calibrating your instruments!

**Statistical Analysis**

Using a metarubric such as the VALUE rubrics to score across a broad range of artifacts and contexts can cause some issues with consistency and inter-rater reliability. Krippendorff’s alpha standard set to demonstrate reliability is at .8, however, additionally, the inter-rater reliability “where only tentative conclusions are acceptable, alpha greater than or equal to .667 is acceptable” (Krippendorf, 2004. pg. 241).

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Rating | Explanation of Issues | | Supporting Info | | Analysis | | Student's Position | | Conclusions/ Outcomes | |
| Rating | NA | 0 | 0% | 11 | 9% | 0 | 0% | 10 | 9% | 5 | 4% |
| Frequency | 0 | 4 | 3% | 13 | 11% | 4 | 3% | 4 | 4% | 3 | 3% |
|  | 1 | 33 | 28% | 38 | 32% | 33 | 28% | 41 | 36% | 35 | 30% |
|  | 2 | 49 | 42% | 28 | 24% | 44 | 37% | 35 | 31% | 44 | 37% |
|  | 3 | 25 | 21% | 27 | 23% | 35 | 30% | 22 | 19% | 28 | 24% |
|  | 4 | 7 | 6% | 1 | 1% | 2 | 2% | 2 | 2% | 3 | 3% |
| Average | a | 1.58 |  | 1.40 |  | 1.77 |  | 1.38 |  | 1.76 |  |
| Rating by | b | 1.77 |  | 1.88 |  | 1.92 |  | 1.85 |  | 1.73 |  |
| Reviewer | c | 2.08 |  | 1.50 |  | 2.08 |  | 1.77 |  | 2.23 |  |
|  | d | 2.04 |  | 1.35 |  | 1.88 |  | 1.55 |  | 1.73 |  |
|  | e | 3.00 |  | 2.57 |  | 2.29 |  | 2.29 |  | 2.71 |  |
|  | f | 2.71 |  | 2.43 |  | 2.71 |  | 2.71 |  | 2.14 |  |
| Overall Average |  | 1.98 |  | 1.67 |  | 1.98 |  | 1.78 |  | 1.94 |  |

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| **Explanation of Issues** | |  |  |  |  |  | |  | | --- | |  | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Number of rating pairs (2 raters on same artifact) | | | | | 59 |  |  |  |  |  |  |
| Pairs in agreement | |  |  |  | 23 | 39% |  |  |  |  |  |
| Krippendorf's alpha (ordinal) | | |  |  | 0.5172 |  |  |  |  |  |  |
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| **Supporting Info** | |  |  |  |  |  |  | | | | |
| Number of rating pairs (2 raters on same artifact) | | | | | 48 |  |
| Pairs in agreement | |  |  |  | 19 | 40% |
| Krippendorf's alpha (ordinal) | | |  |  | 0.4670 |  |
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| **Analysis** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | | | | |
| Number of rating pairs (2 raters on same artifact) | | | | | 59 |  |
| Pairs in agreement | |  |  |  | 22 | 37% |
| Krippendorf's alpha (ordinal) | | |  |  | 0.2874 |  |
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| **Student's Position** | |  |  |  |  |  |  | | | | |
|  |  |  |  |  |  |  |
| Number of rating pairs (2 raters on same artifact) | | | | | 45 |  |
| Pairs in agreement | |  |  |  | 23 | 51% |
| Krippendorf's alpha (ordinal) | | |  |  | 0.4600 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
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| **Outcomes/Conclusion** | |  |  |  |  |  |  | | | | |
|  |  |  |  |  |  |  |
| Number of rating pairs (2 raters on same artifact) | | | | | 54 |  |
| Pairs in agreement | |  |  |  | 19 | 35% |
| Krippendorf's alpha (ordinal) | | |  |  | 0.2909 |  |  |  |  |  |  |
|  | | |  |  |  |  |  |  |  |  |  |

**Future Assessment**

We will be assessing Written Communication and Critical Thinking in fall, 2017. Work on assessment of Quantitative Literacy will begin with discussion of a common rubric for both CSMS and Natural Sciences. Oral Communication will be assessed in spring 2017. Three other EL outcomes (Examine and Evaluate an Argument, Demonstrate Investigative and Analytical Thinking Skills, and Select and Use Appropriate Information or Techniques) will be assessed in fall, 2017. Discussion of assessment methods will begin this fall.